1905 - Creating Passwords II

Description

Some modern systems needs the automatic generation of passwords for its users.
The users administration system of the UMCC, use a curious algorithm for that.
This algorithm is based only on the passport ID and the name of its users.
The passport ID of any user is a number of exactly six digits.
The name of any user is typically a set of words.

For some user, the password is a word which is generated in the following way:
The first three digits of the passport ID, the concatenation of the words in the name separated by the character '*', and the last three digits of the passport ID (ie. for the user with name RITA GARCIA HERNANDEZ and passport ID 346653, the password is 346RITA*GARCIA*HERNANDEZ653).

This algorithm appears to be interesting for the Group of Telematics Services of the Caribbean University of Informatics (CUI). So, they decided to use it in the freshman students but, due to special characteristics of the CUI, they need to introduce some changes:
The credential ID of any user (of the CUI) is a number of exactly four digits.
The name of any user is typically a set of words.
All words are separated by a single space.
All words have no more than 20 letters.
All words have only capital letters.

Then, for some user, the password is a word which is generated in the following way:
The first two digits of the credential ID, the concatenation of the words in the name separated by the character '*', begining in the last and down to the first, and the last two digits of the credential ID (ie. for the user with name RITA GARCIA HERNANDEZ and passport ID 3453, the password is 34HERNANDEZ*GARCIA*RITA53).

Input specification

The first line of the input is **1 <= N <= 1000**, the number of users in the input. In each of the **N** following lines, there is one user description (credential ID followed by the name).

Output specification

For each user, you must print one line with the password generated by the CUI algorithm.

Sample input

```
3
3453 RITA GARCIA HERNANDEZ
4656 MANUEL GONZALEZ BRITO
6335 OLGALIDIA BROK SABALA
```

Sample output

```
34HERNANDEZ*GARCIA*RITA53
46BRITO*GONZALEZ*MANUEL56
63SABALA*BROK*OLGALIDIA35
```

Hint(s)

Source	Yonny Mondelo Hernández
Added by	**ymondelo20**
Addition date	2012-06-23
Time limit (ms)	5000
Test limit (ms)	1000
Memory limit (kb)	130000
Output limit (mb)	64
Size limit (bytes)	30000
Enabled languages	Bash C C# C++ Java Pascal Perl PHP Python Ruby Text